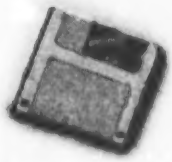
WESTERN CANADIAN PROTOCOL
*for collaboration in basic education*
COMMON CURRICULUM FRAMEWORK

# *Grade 10 to Grade 12 Mathematics Resources*

## Annotated Bibliography



**July 2001**

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# Western Canadian Protocol for Collaboration in Basic Education Common Curriculum Framework

## Grade 10 to Grade 12 Mathematics Resources

## Annotated Bibliography

JULY 2001

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# INTRODUCTION

## Background

The Western Canadian Protocol for Collaboration in Basic Education Kindergarten to Grade 12 was signed in December 1993 by the ministers of education from Manitoba, Saskatchewan, Alberta, British Columbia, Yukon Territory and the Northwest Territories. In February 2000, Nunavut also joined Western Canadian Protocol. *The Common Curriculum Framework for K–12 Mathematics*, for Kindergarten to Grade 9, was released in June 1995 and Grade 10 to Grade 12 was released in June 1996.

## Foreword

This annotated bibliography identifies the new English language resources and resources with new components, endorsed in April 2001, by all Western Canadian Protocol (WCP) jurisdictions implementing *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12* (Common Curriculum Framework).

For a complete listing of WCP approved resources for Grade 10 to Grade 12 mathematics, refer to:

- this July 2001 edition of the WCP *Grade 10 to Grade 12 Mathematics Resources Annotated Bibliography*
- the other editions of August 2000, July 1999 and May 1998
- the WCP web site <http://www.wcp.ca>.

**Note:** The term "pure mathematics" is used in this document to emphasize the difference between pure mathematics and applied mathematics.

Resources in this annotated bibliography were selected through a collaborative and intensive review process. Based on their high level of fidelity with the rationale, philosophy, mathematical processes and outcomes of the Common Curriculum Framework, these resources were found to be the most suitable of those submitted.

During this review, depth and teacher resources were identified for Applied Mathematics 10, 11 and 12. Breadth, depth, breadth and depth, and teacher resources were identified for Pure Mathematics 10, 11 and 12.

**Note:** See definitions on page 3 for clarification of terms used in this bibliography.

## Acknowledgements

In 2001, approximately 100 English language items were received in response to the invitation to publishers, producers and distributors for submission of resources to support the Grade 10 to Grade 12 Common Curriculum Framework. The WCP jurisdictions extend their appreciation to those involved in the review and selection processes to identify the best student and teacher resources:

- 14 teachers and some ministry staff selected by the participating jurisdictions to review the materials
- all the school systems in the WCP jurisdictions that supported teachers participating in the review process
- the publishers, producers and distributors who, in many cases, engaged in significant development to provide resources specifically designed for the Common Curriculum Framework.


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**Future Calls for Resources**

This fourth call was the final planned call for Grade 10 to Grade 12 mathematics resources. The partners are now developing a continuous submission process to ensure the currency of the resource collections. This new process should be implemented next year.

**Applied Mathematics Resources**

The first call for applied and pure mathematics Grade 10 to Grade 12 resources was issued on June 25, 1996. By the spring of 1997, there were concerns that there might not be any applied mathematics breadth resources developed and submitted for review by the February 2, 1998 submission deadline. Correspondence with publishers confirmed this assumption. A "Request for Proposal" to develop applied mathematics breadth resources for grades 10, 11 and 12 was issued in the fall of 1997. Submissions were received and evaluated. Pearson Education Canada was selected to prepare an applied mathematics resource for each of grades 10, 11 and 12.

The resources that have been developed and approved to date are as follows:

*Applied Mathematics – Grade 10*

- Student's text (*Source Book* and *Project Book*), *Teacher's Resource Book* and *Technology Kit* are currently available.

*Applied Mathematics – Grade 11*

- Student's text (*Source Book* and *Project Book*) and the *Teacher's Resource Book* are currently available.

The entire preprint noncolour document for *Applied Mathematics – Grade 12* is currently available. The provisional timelines for the final format of the materials are as follows:

- Bound book format – September 2001
- Teacher's Resource Book in three stages – September 1, 2001, October 15, 2001 and December 1, 2001.

**Pure Mathematics Resources**

As a result of the three calls for Grade 10 to Grade 12 mathematics resources, breadth and depth resources for Pure Mathematics 10, 11 and 12 were identified as follows:

*Pure Mathematics – Grade 10*

- Four multicomponent series approved as either breadth and depth or breadth resources.

*Pure Mathematics – Grade 11*

- Three multicomponent series approved as breadth and depth resources.

*Pure Mathematics – Grade 12*

- Three multicomponent series approved as breadth and depth resources.

**Organization**

The resources in this bibliography are organized by course, then alphabetically by title. Resources suitable for more than one course appear with each applicable course, thus providing a comprehensive list of materials for all courses.

Resources are described in annotated format as seen in the sample on page 5. If a resource is deemed to be particularly suited to students with special needs or for small populations; e.g., learning disabled, gifted, this is indicated in the Audience section of the annotation.

An alphabetical title listing at the end of the bibliography summarizes the designated course(s) for each resource.

**Note:** In the annotations, Common Curriculum Framework is used to refer to *The Common Curriculum Framework for K–12 Mathematics Grade 10 to Grade 12: Western Canadian Protocol for Collaboration in Basic Education.*

**Alternate Format(s)**

Some of the WCP approved resources are, or may be, available in alternate formats to address the needs of students who are visually impaired or print disabled. This information is included in the annotations.

**Pricing Information**

The prices appearing in this document represent the estimated WCP prices to schools and should be firm until August 31, 2002.

These prices should be used as a guideline for purchase planning. They are applicable to all seven participating jurisdictions. The final selling prices for these resources may vary slightly in jurisdictions with book bureaus, depending upon jurisdictional negotiations. Confirmation of pricing should be obtained directly from your jurisdictional book bureau or redistribution centre, if applicable.

**Resource Category**

All learning and teaching resources included in this annotated bibliography were approved by the Western Assistant Deputy Ministers' Steering Committee and designated as WCP Key Resources for the Common Curriculum Framework.

**Definitions**

*Fidelity* is the degree to which the learning or teaching resource addresses the general and specific outcomes in the Common Curriculum Framework.

*WCP Key Resources* are high quality learning and teaching resources that best address the philosophy and content of the outcomes embodied in the Common Curriculum Framework. The resources include a variety of media and formats, with the following characteristics:

- *Breadth*—learning resources with the highest possible level of fidelity with the general and specific outcomes published for a course.
- *Depth*—learning resources that address a limited range of general and specific outcomes for a cluster or set of clusters, but provide an especially effective learning experience for students.
- *Breadth and Depth*—comprehensive learning resources that provide both the *breadth* and *depth* dimensions for a particular course.
- *Teacher*—resources that assist teachers with the implementation of the Common Curriculum Framework and any courses derived from it.

**Criteria for the Selection of Learning and Teaching Resources**

Resources in this annotated bibliography were selected according to the following criteria:

*Content and Curriculum Fit* includes the effectiveness in the way the resource:

- supports any given learning outcome within a strand or substrand
- meets student needs.

*Instructional Design* includes:

- organization and presentation techniques
- methods used to introduce, develop and summarize concepts
- vocabulary level of the resource
- suitability to student learning styles or to special audiences.

*Technical Design* includes such factors as:

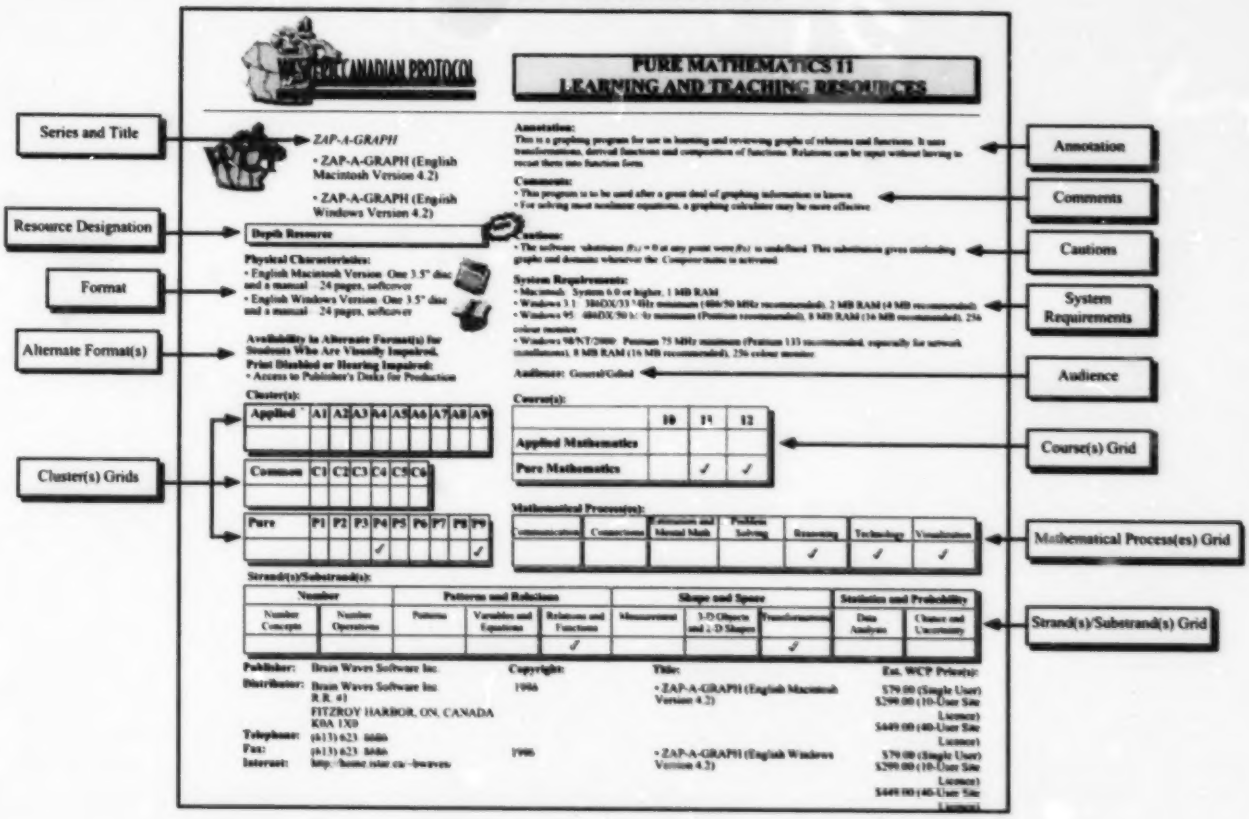
- for print—binding, type of print, quality of illustrations, durability and format
- for software—hardware requirements, ease of navigation and robustness of programming. Software must run on operating systems that are easy for students to use and readily available in schools. At present, listed resources run on Windows 3.1, Windows 95 / 98 / NT / 2000 and Macintosh System 6.0 and later. It is conceivable that resources that run on additional operating systems, such as Linux, may be included in future lists of approved resources
- for multimedia resources—pacing, quality of pictures/sound, user friendliness, use of special features for emphasis and interactivity.

*Social Considerations* includes screening for social concerns.

When selecting learning and teaching resources from this list, consideration should be given to how the resources meet the learning needs of students and to the perspectives of the local community.

Information on a resource may be obtained from the descriptions in this bibliography, from the distributor, from published reviews or colleagues, and from an examination of the resource.

# SAMPLE ANNOTATION


Series and Title
Resource Designation
Format
Alternate Format(s)
Cluster(s) Grids
Annotation
Comments
Cautions
System Requirements
Audience
Course(s) Grid
Mathematical Process(es) Grid
Strand(s)/Substrand(s) Grid
WESTERN CANADIAN PROTOCOL
PURE MATHEMATICS 11
LEARNING AND TEACHING RESOURCES
ZAP-A-GRAPH
• ZAP-A-GRAPH (English Macintosh Version 4.2)
• ZAP-A-GRAPH (English Windows Version 4.2)
Depth Resource
Physical Characteristics:
• English Macintosh Version: One 3.5" disc and a manual 24 pages, softcover
• English Windows Version: One 3.5" disc and a manual 24 pages, softcover
Availability in Alternate Format(s) for Students Who Are Visually Impaired, Print Disabled or Hearing Impaired:
• Access to Publisher's Disks for Production
Cluster(s):
Applied A1 A2 A3 A4 A5 A6 A7 A8 A9
Common C1 C2 C3 C4 C5 C6
Pure P1 P2 P3 P4 P5 P6 P7 P8 P9
Annotation:
Comments:
• This program is to be used after a great deal of graphing information is known.
• For solving most nonlinear equations, a graphing calculator may be more effective.
Cautions:
• The software 'substitutes' f(x) = 0 at any point were f(x) is undefined. This substitution gives misleading graphs and domains wherever the Compute menu is activated.
System Requirements:
• Macintosh: System 6.0 or higher, 1 MB RAM
• Windows 3.1: 386DX/33 MHz minimum (486/50 MHz recommended), 2 MB RAM (4 MB recommended)
• Windows 95: 486DX/50 MHz minimum (Pentium recommended), 8 MB RAM (16 MB recommended), 256 colour monitor
• Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations), 8 MB RAM (16 MB recommended), 256 colour monitor
Audience: General/Gifted
Course(s):
10 11 12
Applied Mathematics
Pure Mathematics ✓ ✓
Mathematical Process(es):
Communication Connections Estimation and Mental Math Problem Solving Reasoning ✓ Technology ✓ Visualization ✓
Strand(s)/Substrand(s):
Number: Number Concepts, Number Operations
Patterns and Relations: Patterns, Variables and Equations, Relations and Functions ✓
Shape and Space: Measurement, 3-D Objects and 2-D Shapes, Transformations ✓
Statistics and Probability: Data Analysis, Chance and Uncertainty
Publisher: Brain Waves Software Inc.
Distributor: Brain Waves Software Inc. R.R. 41 FITZROY HARBOR, ON, CANADA K0A 1X0
Telephone: (613) 623-6686
Fax: (613) 623-6686
Internet: http://home.istar.ca/~bwaves
Copyright: 1996
Title: • ZAP-A-GRAPH (English Macintosh Version 4.2)
Est. WCP Price(s): $79.00 (Single User) $299.00 (10-User Site Licence) $449.00 (40-User Site Licence)
1996
• ZAP-A-GRAPH (English Windows Version 4.2)
$79.00 (Single User) $299.00 (10-User Site Licence) $449.00 (40-User Site Licence)

- *Series and Title:* series names are indicated by italics.
  - The "New" identifies what is new for 2001. It may be a new resource or a new component in a multicomponent resource.
- *Resource Designation:* indicates breadth, depth, breadth and depth, or teacher resource.
- *Format:* describes physical characteristics and is represented by an icon, such as:

CD-ROM

Kit

Print

Software

- *Alternate Format(s):* indicates which resources are or could be available in alternate formats for students who are visually impaired or print disabled.
- *Cluster(s) Grids:* identify the cluster(s) of outcomes that are addressed in the resource.
- *Annotation:* provides an overview of the resource.
- *Comments:* provide additional information about the resource.
- *Cautions:* alert teachers to potentially sensitive issues / community concerns, or concerns about curriculum fit.
- *System Requirements:* specify the type of hardware, and the operating system, required to run the software, and any other system information.
- *Audience* (students and teachers of these students):
  - General: the majority of students.
  - Learning Disabled (LD): students who have difficulty in processing and understanding spoken, written or visual information.
  - Gifted: students who give evidence of high performance capability in areas such as intellect, creativity, or specific academic disciplines.
- *Course(s) Grid:* identifies the course(s) for which the resource is most suitable.
- *Mathematical Process(es) Grid:* identifies those processes students will use when working through the activities provided in the resource.
- *Strand(s)/Substrand(s) Grid:* allows teachers to readily see the fit between the Common Curriculum Framework strands/substrands and the outcomes covered in the resource.

# APPLIED MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

*Addison-Wesley Applied Mathematics 10 (Western Canadian Edition)*

- Applied Mathematics 10: Source Book
- Applied Mathematics 10: Project Book
- Applied Mathematics 10: Teacher's Resource Book
- NEW Applied Mathematics 10: Technology Kit (Macintosh / Windows Version)

**Breadth and Depth Resource**

**Author(s):**
Alexander, R. et al.

**Physical Characteristics:**

- Source Book—464 pages, hardcover
- Project Book—100 pages, softcover
- Teacher's Resource Book—Seven booklets (approximately 200 pages) and one CD-ROM (Macintosh/Windows), all in a 3-ring binder
- Technology Kit—211 pages, softcover, and one CD-ROM

**Availability in Alternate Format(s) for Students Who Are Visually Impaired, Print Disabled or Hearing Impaired:**
- Access to Publisher's Disks for Production

**Annotation:**
This resource package is closely related to the philosophy and content of the Common Curriculum Framework.

- *Source Book*

The source book has seven chapters that develop topics from the Common Curriculum Framework strands. Each chapter includes an overview of the learning, a chapter project that usually requires research, and a hands-on activity. A series of tutorials is used to develop specific mathematical concepts. The typical tutorial consists of a section for practising prior skills, one or more investigations, exercises, and sections for discussing and communicating ideas. An inquiry approach is used to discover concepts in the development of the outcomes. Applications and problem-solving questions use real-life examples. Major examples that incorporate graphing calculators and computer software occur throughout the resource. A chain link icon is used in the source book to identify links to projects in the project book and to resources in the source book. Each chapter ends with a "Consolidating Your Skills" section that consists of an activity, review problems and a summary of the chapter project with illustrations of actual student work. Resources at the end of the source book include utilities, a student reference, answers and an index.

- *Project Book*

This resource consists of 20 additional projects for students that provide an opportunity to apply mathematics in a new context. Each project consists of several components: an outline of the purpose, a materials list, background information, a link to the required skills developed in the student source book, an exploration of the basic mathematical concepts underlying the project application, suggestions for presenting the project results, and a description of related career opportunities. The projects are open-ended and provide opportunities for problem solving, multiple strategies and group work.

- *Teacher's Resource Book*

The resource book provides a correlation of outcomes with text pages. Each section in the manual supplies supplementary examples and assessment examples the teacher can use during lessons. Blackline masters are included and can be used as practice exercises and in examination making. The enrichment section offers problem solving and applications of previously learned outcomes. Suggestions are included for sequencing and pacing the course content.

- *Technology Kit*

This resource contains two parts—one for computers, and one for graphing calculators. The computer part contains seven spreadsheet and four database utilities, together with data files on Olympic Summer Games, helicopters, Canadian weather, and youth health. The utilities are written in multiple formats (ClarisWorks for Macintosh and Windows 3.1, Microsoft Works for Windows 3.1, Microsoft Office, both Excel and Access, for Windows 95 standalone, Microsoft Office for Windows 95/98/NT networks). Eighteen activities are included with the resource. The graphing calculator part contains both operating instructions and student activities. The operating instructions are written for the Texas Instruments TI-83 calculator, although many of the activities included can be used with other graphing calculators. The quality of teacher-constructed activities is entirely dependent on the quality of the items imported from the data files in the kit. The resource has clear instructions and the navigation processes are straightforward, so the kit is acceptable on technical criteria. The resource was not evaluated on content and process validity, as reviewers have no control as to the quality of material being imported from data files.

**Comments:**
- In order to cover all of the outcomes from the Common Curriculum Framework for Applied Mathematics 10, it is essential that the particular projects noted in the project book are completed by students.

**Cautions:**
- References are made to specific Internet web sites. **These web sites, including the one maintained by the publisher, are not approved. Teachers, for their own protection, should review the current status of the web sites, and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.

**System Requirements:**
- Macintosh: System 7.1 or higher; LC III (040 25 MHz recommended); 4 MB RAM (8 MB recommended); CD drive; either Microsoft Works or ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); CD drive; either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works/Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended; especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

**Audience:** General

*Continued*

# APPLIED MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

*Continued*

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | ✓ | ✓ | | | | | | | |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | ✓ | ✓ | ✓ | | | | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | | | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | ✓ | | |
| **Pure Mathematics** | | | |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| **Number** | | **Patterns and Relations** | | | **Shape and Space** | | | **Statistics and Probability** | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |

| | |
|---|---|
| **Publisher:** | Addison-Wesley Longman Ltd. |
| **Distributor:** | Pearson Education Canada<br>26 Prince Andrew Place<br>DON MILLS, ON, CANADA M3C 2T8 |
| **Telephone:** | (800) 263-9965; (416) 386-3412 |
| **Fax:** | (416) 447-2551 |
| **Internet:** | http://www.pearsoned.ca |

| **Copyright:** | **ISBN:** | **Component Titles:** | **Est. WCP Price(s):** |
|---|---|---|---|
| 1999 | 0201395851 | • Applied Mathematics 10: Source Book | $62.95 (Source Book and Project Book Package) |
| 1999 | 020139586X | • Applied Mathematics 10: Project Book | |
| 2000 | 0201395878 | • Applied Mathematics 10: Teacher's Resource Book | $149.95 |
| 2000 | 020168487X | • Applied Mathematics 10: Technology Kit (Macintosh / Windows Version) | $149.95 |

# APPLIED MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

*Applied Mathematics 10 (Distance Learning Package)*
- Module 1: Measurement
- Module 2: Number Patterns in Tables
- Module 3: Relations and Functions
- Module 4: Sampling
- Module 5: Line Segments
- Module 6: Linear Functions
- Module 7: Trigonometry
- Assignment Booklets 1–7 and Project Booklets 1–7
- Applied Mathematics 10: Teacher's Guide

**Breadth and Depth Resource**

**Physical Characteristics:**

- Module 1: Measurement—112 pages, coilbound, with Companion CD (Windows / Macintosh Version)
- Module 2: Number Patterns in Tables—104 pages, coilbound
- Module 3: Relations and Functions—99 pages, coilbound

- Module 4: Sampling—63 pages, coilbound
- Module 5: Line Segments—82 pages, coilbound
- Module 6: Linear Functions—160 pages, coilbound
- Module 7: Trigonometry—124 pages, coilbound
- Assignment Booklets: Modules 1–7—seven Assignment Booklets, 6–12 pages each, stapled; Project Booklets 1–7—seven Project Booklets, 5–8 pages, each, stapled

**Annotation:**
This distance education package includes seven modules with instruction assignment, assessment and a learning facilitator's manual. A CD-ROM with video clips, demonstrations and simulations is included. This resource package regularly refers to *Applied Mathematics 10 Source Book* and *Project Book* (Addison-Wesley). References to calculator and computer applications are explained. All mathematical processes and a variety of learning styles are addressed through the various components.

**Comments:**
- This package is set up for individual learning and would work best for individualized programs.
- This is a wraparound resource package as materials are integrated with *Applied Mathematics 10 Source Book* and *Project Book* (Addison-Wesley). This resource cannot be used as a standalone package.
- The resource references the TI-83 calculator.
- Access to a computer is highly recommended.
- The most effective use of the CD-ROM is with a screen resolution of 640x480.

**Cautions:**
- References are made in the resource to specific Internet web sites. **These web sites are not approved. Teachers, for their own protection, should review the current status of the web sites and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | **A1** | **A2** | **A3** | **A4** | **A5** | **A6** | **A7** | **A8** | **A9** |
| | | | | | | | | | |
| **Common** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** | | | |
| | | | | | | | | | |
| **Pure** | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** | **P8** | **P9** |
| | | | | | | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | ✓ | | |
| **Pure Mathematics** | | | |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |

*Continued*

# APPLIED MATHEMATICS 10
# LEARNING AND TEACHING RESOURCES

*Continued*

**Publisher:** Learning Technologies Branch
**Distributor:** Learning Resources Centre (LRC)
12360 – 142 Street
EDMONTON, AB, CANADA T5L 4X9
**Telephone:** (780) 427–5258
**Fax:** (780) 422–9750
**Interne :** http://www.lrc.learning.gov.ab.ca

| Copyright: | ISBN: | Title: | Est. WCP Price(s): |
|---|---|---|---|
| 2000 | 0774116072 | • Module 1: Measurement | $14.00 (Module 1 + CD)<br>$4.00 (Assignment and Project Booklets) |
| 2000 | 0774116374 | • Module 2: Number Patterns in Tables | $14.00 (Module 2)<br>$4.00 (Assignment and Project Booklets) |
| 2000 | 0774117222 | • Module 3: Relations and Functions | $14.00 (Module 3)<br>$4.00 (Assignment and Project Booklets) |
| 2000 | 0774117125 | • Module 4: Sampling | $14.00 (Module 4)<br>$4.00 (Assignment and Project Booklets) |
| 2000 | 0774117850 | • Module 5: Line Segments | $14.00 (Module 5)<br>$4.00 (Assignment and Project Booklets) |
| 2000 | 0774117974 | • Module 6: Linear Functions | $14.00 (Module 6)<br>$4.00 (Assignment and Project Booklets) |
| 2000 | 0774117826 | • Module 7: Trigonometry | $14.00 (Module 7)<br>$4.00 (Assignment and Project Booklets) |
| 2000 | | • Assignment Booklets 1–7 and Project Booklets 1–7 | $12.00 |
| 2000 | 0774116099 | • Applied Mathematics 10: Teacher's Guide | $60.00 |

# APPLIED MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

NEW

*Addison-Wesley Applied Mathematics 11 (Western Canadian Edition)*

- Applied Mathematics 11: Source Book
- Applied Mathematics 11: Project Book
- Applied Mathematics 11: Teacher's Resource Book

**Annotation:**
This resource package is closely related to the philosophy and content of the Common Curriculum Framework.

- *Source Book*

The source book has seven chapters that develop topics from the Common Curriculum Framework strands. Each chapter includes an overview of the learning, a chapter project that usually requires research, and a hands-on activity. A series of tutorials is used to develop specific mathematical concepts. The typical tutorial consists of a section for practising prior skills, one or more investigations, exercises, and sections for discussing and communicating ideas. An inquiry approach is used to discover concepts in the development of the outcomes. Applications and problem-solving questions use real-life examples. Major examples that incorporate graphing calculators and computer software occur throughout the resource. A chain link icon is used in the source book to identify links to projects in the project book and to resources in the source book. Each chapter ends with a "Consolidating Your Skills" section that consists of an activity, review problems and a summary of the chapter project with illustrations of actual student work. Resources at the end of the source book include utilities, a student reference, answers and an index.

- *Project Book*

This resource consists of 24 additional projects for students that provide an opportunity to apply mathematics in a new context. Each project consists of several components: an outline of the purpose, a materials list, background information, a link to the required skills developed in the student source book, an exploration of the basic mathematical concepts underlying the project application, suggestions for presenting the project results, and a description of related career opportunities. The projects are open-ended and provide opportunities for problem solving, multiple strategies and group work.

- *Teacher's Resource Book*

The resource book provides a correlation of outcomes with text pages. Each section in the manual supplies supplementary examples and assessment examples the teacher can use during lessons. Blackline masters are included and can be used as practice exercises and in examination making. The enrichment section offers problem solving and applications of previously learned outcomes. Suggestions are included for sequencing and pacing the course content.

**Comments:**
- In order to cover all of the outcomes from the Common Curriculum Framework for Applied Mathematics 11, it is essential that the particular projects noted in the project book are completed by students.
- The resource's treatment of combining percentage errors contains some subtle errors. There should be a distinction made between calculating the resulting percentage error of an output variable (which is done correctly in the resource) and calculating the required percentage error in an input variable when asked to design an object to a required percentage tolerance (which is done incorrectly in the resource).

**Cautions:**
- References are made to specific Internet web sites. **These web sites, including the one maintained by the publisher, are not approved. Teachers, for their own protection, should review the current status of the web sites, and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- The examples on world population and population pyramids may be considered controversial in many communities. Teachers should be guided by any local or jurisdictional policies on the teaching of controversial issues. They should also consult their colleagues teaching biology and social studies, and present this material in a manner consistent with the science and social studies frameworks used in their jurisdictions.
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.

**Audience:** General

**Breadth and Depth Resource**

**Author(s):**
Alexander, R. et al.

**Physical Characteristics:**
- Source Book—468 pages, hardcover
- Project Book—150 pages, softcover
- Teacher's Resource Book—eight booklets (approximately 300 pages) and one CD-ROM (Macintosh/Windows), all in a 3-ring binder

*Continued*

# APPLIED MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

*Continued*

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | ✓ | ✓ | | | | | | | |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | ✓ | ✓ | ✓ | | | | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | | | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | ✓ | |
| **Pure Mathematics** | | | |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | |

**Publisher:** Addison Wesley
**Distributor:** Pearson Education Canada
26 Prince Andrew Place
DON MILLS, ON, CANADA M3C 2T8
**Telephone:** (800) 263-9965; (416) 386-3412
**Fax:** (416) 447-2551
**Internet:** http://www.pearsoned.ca

| Copyright: | ISBN: | Title: | Est. WCP Price(s): |
|---|---|---|---|
| 2000 | 0201395916 | • Applied Mathematics 11: Source Book | $65.95 (Source Book and Project Book Package) |
| | 0201395924 | • Applied Mathematics 11: Project Book | |
| | 0201395908 (Set) | | |
| 2000 | 0201395932 | • Applied Mathematics 11: Teacher's Resource Book | $159.95 |

**There are no new resources identified for Applied Mathematics 12.**

**There are no new resources identified for Pure Mathematics 10.**

# PURE MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

*Addison-Wesley Mathematics 11 (Western Canadian Edition)*

- Student Text
- Independent Study Guide
- Teacher's Resource Book (includes Selected Solutions CD-ROM) (Macintosh/Windows Version 1.0)
- Template and Data Kit (Macintosh/Windows Version 1.0)
- Acces Exercise Database (Macintosh/Windows Version)

**Breadth and Depth Resource**

**Author(s):**
Alexander, R.; Kelly, B.

**Physical Characteristics:**

- Student Text—601 pages, hardcover
- Independent Study Guide—146 pages, softcover
- Teacher's Resource Book—Approximately 300 pages, loose; CD-ROM
- Template and Data Kit—152 pages, coilbound; CD-ROM (for ClarisWorks, Macintosh 2.0, Windows 1.0, Microsoft Works 3.0, Microsoft Office 97 and Windows 95)
- Acces Exercise Database—CD-ROM and 331 pages, all in a 3-ring binder

**Availability in Alternate Format(s) for Students Who Are Visually Impaired, Print Disabled or Hearing Impaired:**
- Access to Publisher's Disks for Production (for Template and Data Kit)

**Annotation:**
The resource package closely maps the content of the Common Curriculum Framework. The framework's mathematical processes are embedded throughout the resource package. A conscientious effort was employed to relate the mathematical concepts developed to real-world situations. The student text makes good use of visual presentations, and the format is consistent throughout. Icons and headings are the primary means of navigation through the student text.

This package supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts, and open-ended questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas; manipulatives are used for the understanding of abstract concepts; and the use of appropriate technology is integrated throughout the student text. The mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology and visualization are highlighted through the use of icons in examples, explanations and activities.

- *Student Text*

The text has nine chapters that relate mathematical content to topics from the Common Curriculum Framework strands. Each chapter focuses on a connection problem, entitled "Mathematical Modelling." Relevant mathematical material either precedes the problem, or follows the problem, depending on the chapter. An inquiry approach is used to discover concepts in the development of the outcomes. Practice exercises are included. Applications and problem-solving questions use real-life examples. Major examples that incorporate graphing calculators and computer software occur throughout the resource.

- *Independent Study Guide*

This resource provides students with additional examples and explanations to supplement the material in the student text. An introductory chapter helps the student develop efficient study skills. For the other nine chapters, which parallel the chapters of the student text, additional explanations, cross-referenced self-tests, mini-glossaries and overviews provide additional assistance to the student. Solutions to the self-tests included in the independent study guide are given at the back of the guide in short form, and in more extended form on the CD-ROM included in the teacher's resource book.

- *Teacher's Resource Book*

The teacher's resource book contains teaching notes relating to examples in the student text, blackline masters, additional examples and traditional unit tests. A TI-83 graphing calculator handbook, suggestions for graphing calculator activities and a CD-ROM with solutions to the student text and independent study guide are part of the teacher's resource book.

- *Template and Data Kit*

This resource includes five extensive databases—hockey greats, transportation, aircraft, movies and real estate; templates for the spreadsheet activities found in the student text; and a teacher's guide. The teacher's guide contains spreadsheet and database tutorials, additional technology activities, and teaching notes and answers. The activities address a wide variety of outcomes.

- *Acces Exercise Database (Macintosh/Windows Version)*

This is an electronic database of over 2400 multiple-choice questions in print and on CD-ROM. The questions are divided into chapters and sections that mirror the student text. It requires the Acces program. The quality of the assessments constructed with this resource is entirely dependent on the quality of the items imported. This resource has clear instructions and navigation is relatively easy, so the resource is acceptable on technical criteria. It was not assessed on content and process validity, as the reviewers have no control as to the quality of material being imported.

**Comments:**
- The treatment of the side-side-angle case for oblique triangles (specific outcome P3–5) is integrated into the calculation of chord and secant lengths (specific outcomes C5–5 and P5–7). The treatment uses two right triangles, in contrast to the more traditional use of the law of sines.
- The teacher's resource book assessment sections have a strong emphasis on procedures. This approach to assessment is not consistent with the philosophy of the WCP Common Curriculum Framework.
- The instructional strategies are limited to those found in the student text.
- The teaching notes are confined to advice on examples from the student text; they do not include additional instructional strategies.

**Cautions:**
- References are made in both the student and the teacher materials to specific Internet web sites, including one mathematics site being maintained by Addison-Wesley Longman. **These web sites, including Addison-Wesley Longman's own site, are not approved. Teachers, for their own protection, should review the current status of the web sites, including the documents identified in the links, to ensure that the site contains accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policy that applies to their jurisdiction, and use the resource in a manner that is consistent with the calculator policy.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with the assessment information or policies.

*Continued*

# PURE MATHEMATICS 11
# LEARNING AND TEACHING RESOURCES

*Continued*

**System Requirements:**

Teacher's Resource Book
- Macintosh: 68020 or greater processor; Mac OS 7.0 or later; 7 MB RAM minimum; 5 MB hard drive space plus 7 MB temporary drive space available during installation; 256 colour 13-inch monitor; 2X CD drive or better.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM minimum; 5 MB hard drive space plus 7 MB temporary drive space available during installation; 256 colour 13-inch monitor; 2X CD drive or better.
- Windows 95: 486DX/50 MHz (Pentium recommended); 4 MB RAM minimum; 5 MB hard drive space plus 7 MB temporary drive space available during installation; 256 colour 13-inch monitor; 2X CD drive or better.

Template and Data Kit
- Macintosh: System 6.0.5 or higher; 4 MB RAM; mouse; ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486/50 MHz (Pentium recommended); 8 MB RAM (16 MB recommended); mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

Acces Exercise Database
- Macintosh: System 7.1 or higher; LC III (040 25 MHz recommended); 4 MB RAM (8 MB recommended); CD drive.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | **A1** | **A2** | **A3** | **A4** | **A5** | **A6** | **A7** | **A8** | **A9** |
| | | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Common** | **C1** | **C2** | **C3** | **C4** | **C5** | **C6** |
| | | | | ✓ | ✓ | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Pure** | **P1** | **P2** | **P3** | **P4** | **P5** | **P6** | **P7** | **P8** | **P9** |
| | | | ✓ | ✓ | ✓ | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | ✓ | |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| N/A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | N/A | N/A | N/A |

**Publisher:** Addison-Wesley Longman Ltd.
**Distributor:** Pearson Education Canada
26 Prince Andrew Place
DON MILLS, ON, CANADA M3C 2T8
**Telephone:** (800) 263-9965; (416) 386-3412
**Fax:** (416) 447-2551
**Internet:** http://www.pearsoned.ca

| Copyright: | ISBN: | Component Titles: | Est. WCP Price(s): |
|---|---|---|---|
| 1998 | 0201346249 | • Student Text | $51.95 |
| 1999 | 0201346257 | • Independent Study Guide | $5.67 |
| 1999 | 0201346265 | • Teacher's Resource Book (includes Selected Solutions CD-ROM) (Macintosh/Windows Version 1.0) | $121.64 |
| 1998 | 0201346273 | • Template and Data Kit (Macintosh/Windows Version 1.0) | $135.15 |
| 2000 | 0201512890 | • Acces Exercise Database (Macintosh/Windows Version) | $174.95 |

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*Addison-Wesley Mathematics 12 (Western Canadian Edition)*

- Student Text
- Template and Data Kit (Macintosh/Windows Version 1.0)
- Teacher's Resource Book
- Independent Study Guide
- Acces Exercise Database (Macintosh/Windows Version 1.0A)

## Breadth and Depth Resource

**Author(s):**
LeBlanc, D.

**Physical Characteristics:**

- Student Text—624 pages, hardcover
- Template and Data Kit–Teacher's Guide—35 pages, softcover and CD-ROM
- Teacher's Resource Book—Nine paperbound sections (approximately 250 pages) and CD-ROM
- Independent Study Guide—144 pages, softcover
- Acces Exercise Database—CD-ROM and 290 pages, all in a 3-ring binder

**Availability in Alternate Format(s) for Students Who Are Visually Impaired, Print Disabled or Hearing Impaired:**
- Access to Publisher's Disks for Production

**Annotation:**
This multicomponent resource is closely aligned with the content of the Common Curriculum Framework. The Framework's mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology and visualization are embedded throughout in examples, explanations and activities.

The learning of mathematics is supported in a variety of ways. Problem-solving contexts related to real-life situations are used to develop concepts and skills. Open-ended questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas. Manipulatives are used to assist in understanding abstract concepts. The use of appropriate technology is integrated throughout the program.

- *Student Text*

The nine chapters in the student text follow a consistent format in developing topics from the Common Curriculum Framework strands. Each chapter focuses on a connection problem, entitled "Mathematical Modelling." Relevant mathematical material either precedes the problem, or follows it, depending on the chapter. An inquiry approach is used to discover concepts in the development of outcomes. Practice exercises are included. Major examples that incorporate graphing calculators and computer software occur regularly. Visual presentations, icons and headings are used effectively to present material and guide students through the text.

- *Template and Data Kit*

This resource includes four extensive databases—cars, crimes, food manufacturing and NBA statistics. There are templates for the spreadsheet activities found in the student text. A teacher's guide contains spreadsheet and database tutorials, additional technology activities, teaching notes and answers. The activities address a wide variety of outcomes.

- *Teacher's Resource Book*

This resource book provides a correlation of outcomes with text pages. Each section in the manual supplies supplementary examples and assessment examples the teacher can use during lessons. Blackline masters are included and can be used as practice exercises and in examination making. The enrichment section offers problem solving and applications of previously learned outcomes.

- *Independent Study Guide*

The study guide covers each of the chapters in the text. It correlates directly with the text sections. It offers study skills hints, examination writing hints and many practice questions.

- *Acces Exercise Database (Macintosh/Windows Version 1.0A)*

This is an electronic database of over 2400 multiple-choice questions in print and on CD-ROM. The questions are divided into chapters and sections that mirror the student text. It requires the Acces program. The quality of the assessments constructed with this resource is entirely dependent on the quality of the items imported. This resource has clear instructions and navigation is relatively easy, so the resource is acceptable on technical criteria. It was not assessed on content and process validity, as the reviewers have no control as to the quality of material being imported.

**Comments:**
- The period of a sine or cosine function (specific outcome P8–8) is covered twice, once using the equation $y = \sin kx$ (period = $2\pi/k$) for irrational periods and once using $y = \sin(2\pi/T)x$ for rational periods.
- When covering the normal approximation to the binomial distribution, there is no use of a continuity correction, either in the text or in the solutions. This approximation is satisfactory where the interval is ten units or longer, but may cause problems when the interval is shorter.
- Examples in the Teacher's Resource Book can be used by teachers during lessons. Masters can be used as examination questions or even practice questions.
- The Independent Study Guide could be used by students on their own or in the classroom.
- In the treatment of exponential functions, references are made to world population and to bacterial growth. Teachers are advised to consult with their science colleagues so that conclusions can be discussed in a realistic, not alarmist, framework.

**Cautions:**
- In the Teacher's Resource Book, the correlation of outcomes with the student text on page 29 has an error: the outcomes P7–12 to P7–18 should be P7–1 to P7–7.
- The Teacher's Resource Book does not offer many teaching strategies.
- References are made to specific Internet web sites. **These web sites, including the one maintained by the publisher, are not approved. Teachers, for their own protection, should review the current status of the web sites, and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- The treatment of permutations, combinations and conditional probability in this resource depends heavily on the structure of gambling games, such as Keno. Web references lead easily to sites that discuss gambling strategies and that encourage gambling. These references are likely to cause offense to some students and communities. Teachers are strongly urged to carefully consider student and community values, and use other real-world contexts if there is any possibility of the gambling context being offensive.

*Continued*

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*Continued*

**System Requirements:**
- Macintosh: System 6.0.5 or higher; 4 MB RAM; CD drive; mouse; ClarisWorks.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); CD drive; either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.

Acces Exercise Database
- Macintosh: System 7.1 or higher; LC III (040 25 MHz recommended); 4 MB RAM (8 MB recommended); CD drive.
- Windows 3.1: 386DX/33 MHz minimum; 4 MB RAM (8 MB recommended); either Microsoft Works or ClarisWorks. Windows 95 recommended.
- Windows 95: 486DX/50 MHz minimum (Pentium recommended); 8 MB RAM (16 MB recommended); 256 colour monitor; 4X CD drive or faster; mouse; either ClarisWorks, Microsoft Works or Microsoft Excel/Access.
- Windows 98/NT/2000: Pentium 75 MHz minimum (Pentium 133 recommended, especially for network installations); 8 MB RAM (16 MB recommended); 256 colour monitor.

**Audience:** General/Gifted

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | | | | | |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | | | | | | ✓ | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | | | ✓ | ✓ | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ |

**Publisher:** Addison-Wesley Longman Ltd.
**Distributor:** Pearson Education Canada
26 Prince Andrew Place
DON MILLS, ON, CANADA M3C 2T8
**Telephone:** (800) 263-9965; (416) 386-3412
**Fax:** (416) 447-2551
**Internet:** http://www.pearsoned.ca

| Copyright: | ISBN: | Component Titles: | Est. WCP Price(s): |
|---|---|---|---|
| 1999 | 020134629X | • Student Text | $51.75 |
| 1999 | 020134632X (Pkg.) | • Tempiate and Data Kit (Macintosh/Windows Version 1.0) | $132.98 |
| 2000 | 0201346311 | • Teacher's Resource Book | $147.75 |
| 2000 | 0201346303 | • Independent Study Guide | $6.30 |
| 2001 | 0201513013 | • Acces Exercise Database (Macintosh/Windows Version 1.0A) | $184.95 |

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*MATHPOWER 12 (Western Edition)*

- Student Text
- Teacher's Resource
- Blackline Masters
- Power Slides CD-ROM (Macintosh / Windows Version)
- Solutions*
- Computer Data Bank* (includes CD-ROM and Data Disk) (Macintosh / Windows Version)
- Computerized Assessment Bank* (Windows Version)

## Breadth and Depth Resource

**Author(s):**
Curran, D. et al.

**Physical Characteristics:**

- Student Text—524 pages, hardcover
- Teacher's Resource—319 pages, softcover
- Blackline Masters—243 pages, softcover
- Power Slides CD-ROM—One CD-ROM (Macintosh / Windows Version) + Overview (16 pages, loose)
- Solutions—436 pages, softcover
- Computer Data Bank—235 pages, softcover + one 3.5" diskette (Windows 95 Version) + one CD-ROM (Macintosh / Windows Version)
- Computerized Assessment Bank—User's Notes (55 pages, stapled) + CD-ROM (Windows Version) + Sample Tests with Answer Keys for Chapters 1 to 9 (about 50 pages, loose)

**Annotation:**
This resource package closely maps the content and philosophy of the Common Curriculum Framework. The Framework's mathematical processes of communication, connections, estimation and mental mathematics, problem solving, reasoning, technology and visualization are integrated in examples and activities.

This resource supports the learning of mathematics in a variety of ways. Concepts and skills are presented in problem-solving contexts related to real-world situations. Questions are designed to help students express their ideas about mathematics orally and in writing. Students are encouraged to work in small groups, where appropriate, to explore new ideas. Manipulatives are used for the understanding of abstract concepts. The use of appropriate technology is an integral part of the program.

- *Student Text*

The student text has nine chapters, and a detailed introduction with mathematics standards. Each chapter includes a presentation of the concept, an explore and inquire section to develop the concept, examples with worked solutions, exercises and reviews. The exercises cover a wide variety of types of questions e.g., simple routine questions to challenging application type questions. Effective visual presentations are used throughout. Resources at the end of the text include a glossary, answers, an applications index, a technology index and a general index.

- *Teacher's Resource*

Includes prerequisite skills, outcomes, suggestions for lessons and activities, extension, integrating technology, enrichment and instructions on the use of the TI-83 graphing calculator.

- *Blackline Masters*

The blackline masters supplement MATHPOWER 12 student and teacher resources, and provide additional assignments, chapter reviews, two chapter tests (all short-answer style) from each chapter, cumulative reviews and several rich assessment tasks. Directions for using various calculators are provided.

- *Power Slides CD-ROM*

This is a teaching tool that can be used "as is" for introducing/teaching concepts or it can be edited and customized by the teacher to accommodate various teaching and learning styles. Students may independently use these slides to supplement their learning. PowerPoint is required. Guided Discovery, Inquiry, Review could be used for when students are absent. Could use as a stand-alone resource.

- *Solutions*

This solutions manual supplements the MATHPOWER 12 student and teacher resources, and gives a step-by-step solution to every odd-numbered question in the practice section and all questions from the application problem solving and power problems.

- *Computer Data Bank*

This resource has a number of data banks as well as blackline masters for instructional use. It was reviewed for technical considerations only; navigation through the bank is satisfactory.

- *Computerized Assessment Bank*

This Windows-based (3.1 or 95) software package includes a manual, a mathematical editor and a question pack. Some multiple-choice questions can have their distractor reordered; and for many other questions, the user can key parameters in the stem, whereupon the program will change the distractors with a click of a button. The mathematical editor allows teachers to add questions, allowing for various types of responses; i.e., short answer and free response. Very user-friendly.

**Comments:**
- The student text should be used as a primary classroom resource.
- The introductory pages of the student text, which outline the mathematical processes and the NCTM standards, are an essential part of the resource.
- When covering the normal approximation to the binomial distribution, there is no use of a continuity correction, either in the text or in the solutions. This approximation is satisfactory where the interval is ten units or longer, but may cause problems when the interval is shorter. However, it is addressed in the blackline master 7.4.
- The Computer Data Bank can be used in conjunction with various sections of the text.
- PowerSlides CD-ROM: Some screens have a flaw. They had black print on a black background; e.g., 1.1A.4, 1.7A.3 and 1.7A.5; editing of the PowerSlides required the user to be proficient in the use of PowerPoint.
- Blackline Masters give other calculator instruction for other models.
- Teacher Resource does not have all the answers. The Solutions manual includes alternate solutions.

Databases need proper applications to use them (see annotation from last year)—to update information, copy onto hard drive.

**Cautions:**
- The Macintosh version of Power Slides sometimes gave inappropriate colour selections (black on black). This problem was not present in the Windows version.
- References are made in the student and teacher materials to specific Internet web sites. **The web sites are not approved. Teachers, for their own protection, should review the current status of the web sites and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.

*Continued*

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*Continued*

**System Requirements:**

**Computer Data Bank:**
- ClarisWorks for Macintosh: Mac OS 7.0 or higher, 68020 processor or higher, minimum 4 MB RAM, hard drive, 4X CD drive or faster, ClarisWorks for Macintosh 5.0 or higher installed.
- ClarisWorks for Windows: minimum 486 (Pentium recommended), Windows 95 or later, minimum 8 MB RAM, 3.5" floppy disk drive, ClarisWorks 5.0 for Windows or higher installed.
- Microsoft Works for Windows: minimum 486/33 (Pentium recommended), Windows 95, NT or later, minimum 6 MB RAM (for Windows 95) or minimum 12 MB RAM (for Windows NT), 4X CD drive or faster, Microsoft Works 4.0 for Windows or higher installed.
- Microsoft Access for Windows: minimum 486 (Pentium recommended), Windows 95, NT or later, minimum 12 MB RAM (for Windows 95) or minimum 16 MB RAM (for Windows NT), 3.5" floppy disk drive, Microsoft Access 97 and Microsoft Excel 97 installed.

**Computer Assessment Bank:**
- Windows: 486/66 MHz (Pentium recommended), minimum 16 MB RAM, minimum 5MB hard disk space; VGA colour display, CD drive.

**Power Slides CD-ROM:**
- Macintosh: CD drive, Macintosh OS 7.5.5; Microsoft PowerPoint 97 installed.
- Windows: CD drive, Microsoft Windows 95; Microsoft PowerPoint 97 installed.

**Audience:** General

**Cluster(s):**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Applied** | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
| | | | | | | | | | |
| **Common** | C1 | C2 | C3 | C4 | C5 | C6 | | | |
| | | | | | | ✓ | | | |
| **Pure** | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
| | | | | | | ✓ | ✓ | ✓ | ✓ |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| **Applied Mathematics** | | | |
| **Pure Mathematics** | | | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ |

**Publisher:** McGraw-Hill Ryerson
**Distributor:** McGraw-Hill Ryerson Ltd.
300 Water Street
WHITBY, ON, CANADA L1N 9B6
**Telephone:** (905) 430-5237
**Fax:** (905) 430-5194
**Internet:** http://www.mcgrawhill.ca

| Copyright: | ISBN: | Component Titles: | Est. WCP Price(s): |
|---|---|---|---|
| 2000 | 007552600X | • Student Text | $53.95 |
| 2001 | 0075526018 | • Teacher's Resource | $115.50 |
| 2001 | 0075605007 | • Blackline Masters | $129.95 |
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| 2001 | 0075600218 | • Computer Data Bank (includes CD-ROM and Data Disk) (Macintosh / Windows Version) | $115.50 |
| 2001 | 0075601648 | • Computerized Assessment Bank (Windows Version) | $250.00 |

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*Pure Mathematics 30 (Distance Learning Package)*
- Module 1: Transformations
- Module 2: Exponents and Logarithms
- Module 3: Sequences and Series
- Module 4: Conics
- Module 5: Trigonometry
- Module 6: Combinatorics
- Module 7: Probability and Statistics
- Pure Mathematics 30: Teacher's Guide

**Breadth and Depth Resource**

**Physical Characteristics:**

- Module 1: Transformations—132 pages, coilbound, with Companion CD (Windows / Macintosh Version)
- Module 2: Exponents and Logarithms—143 pages, coilbound
- Module 3: Sequences and Series—145 pages, coilbound
- Module 4: Conics—162 pages, coilbound
- Module 5: Trigonometry—264 pages, coilbound
- Module 6: Combinatorics—148 pages, coilbound
- Module 7: Probability and Statistics—276 pages, coilbound
- Assignment Booklets A and B: Modules 1–7—14 Assignment Booklets, 5–13 pages each, stapled

**Annotation:**
This distance learning package includes seven modules with assignments, a learning facilitator's manual and a CD-ROM. The CD-ROM includes video clips, simulations, explorers including graphing explorers, and demonstrations. Materials are integrated with the student text (*MATHPOWER 12* by McGraw-Hill Ryerson) and is referred to regularly. References to calculator and computer applications are made and explained. All mathematical processes are involved. This resource package provides different components for a variety of learning styles. The CD-ROM is high quality.

**Comments:**
- The resource package is set up for individual learning and works best for individual programs.
- This package cannot be used as a stand-alone resource, as it is reliant on the *MATHPOWER 12* student text.
- To make the best use of the resource, the student should have access to a computer.
- The resource references the TI-83 graphing calculator.
- The most effective use of the CD-ROM is with a screen resolution of 640x480.
- Multilevel classroom; individualized instruction with teacher direction; independent learners with teacher direction; could also be listed as a teacher resource (preamble).
- CD-ROM could be used as a stand-alone resource.

**Cautions:**
- References are made in the resource to specific Internet web sites. **These web sites are not approved. Teachers, for their own protection, should review the current status of the web sites and the documents identified in the links, to ensure that the sites contain accurate information and information that meets the criteria of social considerations.**
- Teachers should consult any list of approved calculators or other calculator policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- Teachers should consult any assessment information or policies that apply to their jurisdiction, and use the resource in a manner that is consistent with them.
- **The resource package does not reflect the Aboriginal population of Western/Northern Canada.**

**Audience:** General

**Cluster(s):**

| Applied | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Common | C1 | C2 | C3 | C4 | C5 | C6 |
|---|---|---|---|---|---|---|
| | | | | | | |

| Pure | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

**Course(s):**

| | 10 | 11 | 12 |
|---|---|---|---|
| Applied Mathematics | | | |
| Pure Mathematics | | | ✓ |

**Mathematical Process(es):**

| Communication | Connections | Estimation and Mental Math | Problem Solving | Reasoning | Technology | Visualization |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

**Strand(s)/Substrand(s):**

| Number | | Patterns and Relations | | | Shape and Space | | | Statistics and Probability | |
|---|---|---|---|---|---|---|---|---|---|
| Number Concepts | Number Operations | Patterns | Variables and Equations | Relations and Functions | Measurement | 3-D Objects and 2-D Shapes | Transformations | Data Analysis | Chance and Uncertainty |
| | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ |

*Continued*

# PURE MATHEMATICS 12
# LEARNING AND TEACHING RESOURCES

*Continued*

**Publisher:** Learning Technologies Branch
**Distributor:** Learning Resources Centre (LRC)
12360 – 142 Street
EDMONTON, AB, CANADA T5L 4X9
**Telephone:** (780) 427–5258
**Fax:** (780) 422–9750
**Internet:** http://www.lrc.learning.gov.ab.ca

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|---|---|---|---|
| 2000 | 0774116315 | • Module 1: Transformations | $14.00 (Module 1 + CD)<br>$4.00 (Assignment Booklets 1A, 1B) |
| 2000 | 0774116420 | • Module 2: Exponents and Logarithms | $14.00 (Module 2)<br>$4.00 (Assignment Booklets 1A, 1B) |
| 2000 | 0774116552 | • Module 3: Sequences and Series | $14.00 (Module 3)<br>$4.00 (Assignment Booklets 1A, 1B) |
| 2000 | 0774116889 | • Module 4: Conics | $14.00 (Module 4)<br>$4.00 (Assignment Booklets 1A, 1B) |
| 2000 | 0774114699 | • Module 5: Trigonometry | $14.00 (Module 5)<br>$4.00 (Assignment Booklets 1A, 1B) |
| 2000 | 0774117257 | • Module 6: Combinatorics | $14.00 (Module 6)<br>$4.00 (Assignment Booklets 1A, 1B) |
| 2000 | 0774117664 | • Module 7: Probability and Statistics | $14.00 (Module 7)<br>$4.00 (Assignment Booklets 1A, 1B) |
| 2000 | | • Assignment Booklets 1A to 7A and Assignment Booklets 1B to 7B | $12.00 |
| 2000 | 0774116331 | • Pure Mathematics 30: Teacher's Guide | $60.00 |

# TITLE LISTING

| TITLE/SERIES | COURSE(S) |
|---|---|
| *Addison-Wesley Applied Mathematics 10 (Western Canadian Edition)*<br>• Applied Mathematics 10: Source Book<br>• Applied Mathematics 10: Project Book<br>• Applied Mathematics 10: Teacher's Resource Book<br>NEW • Applied Mathematics 10: Technology Kit (Macintosh / Windows Version) | Applied Mathematics 10 |
| *Addison-Wesley Applied Mathematics 11 (Western Canadian Edition)*<br>NEW • Applied Mathematics 11: Source Book<br>NEW • Applied Mathematics 11: Project Book<br>NEW • Applied Mathematics 11: Teacher's Resource Book | Applied Mathematics 11 |
| *Addison-Wesley Mathematics 11 (Western Canadian Edition)*<br>• Student Text<br>• Independent Study Guide<br>• Teacher's Resource Book (includes Selected Solutions CD-ROM) (Macintosh/Windows Version)<br>• Template and Data Kit (Macintosh/Windows Version 1.0)<br>NEW • Acces Exercise Database (Macintosh/Windows Version) | Pure Mathematics 11 |
| *Addison-Wesley Mathematics 12 (Western Canadian Edition)*<br>• Student Text<br>• Template and Data Kit (Macintosh/Windows Version 1.0)<br>• Teacher's Resource Book<br>• Independent Study Guide<br>NEW • Acces Exercise Database (Macintosh/Windows Version 1.0A) | Pure Mathematics 12 |
| NEW *Applied Mathematics 10 (Distance Learning Package)*<br>• Module 1: Measurement<br>• Module 2: Number Patterns in Tables<br>• Module 3: Relations and Functions<br>• Module 4: Sampling<br>• Module 5: Line Segments<br>• Module 6: Linear Functions<br>• Module 7: Trigomonetry<br>• Assignment Booklets 1-7 and Project Booklets 1-7<br>• Applied Mathematics 10: Teacher's Guide | Applied Mathematics 10 |

# TITLE LISTING

| TITLE/SERIES | COURSE(S) |
|---|---|
| *MATHPOWER 12 (Western Edition)*<br>• Student Text | Pure Mathematics 12 |
| • Teacher's Resource | |
| • Blackline Masters | |
| • Power Slides CD-ROM (Macintosh / Windows Version) | |
| • Solutions | |
| • Computer Data Bank (includes CD-ROM and Data Disk) (Macintosh / Windows Version)<br> • Computerized Assessment Bank (Windows Version) | |
| *Pure Mathematics 30 (Distance Learning Package)*<br>• Module 1: Transformations<br>• Module 2: Exponents and Logarithms<br>• Module 3: Sequences and Series<br>• Module 4: Conics<br>• Module 5: Trigonometry<br>• Module 6: Combinatorics<br>• Module 7: Probability and Statistics<br>• Pure Mathematics 30: Teacher's Guide | Pure Mathematics 12 |